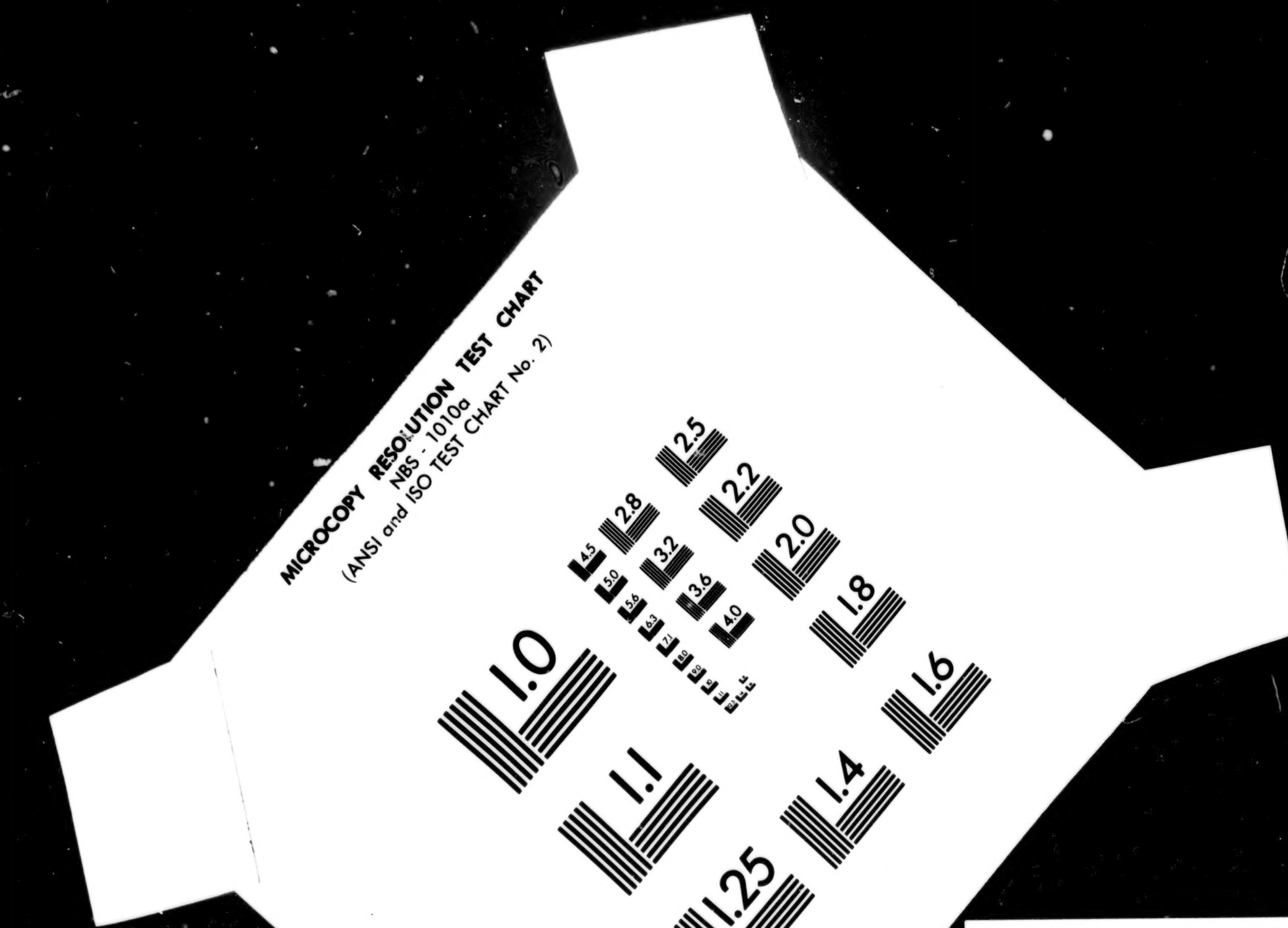
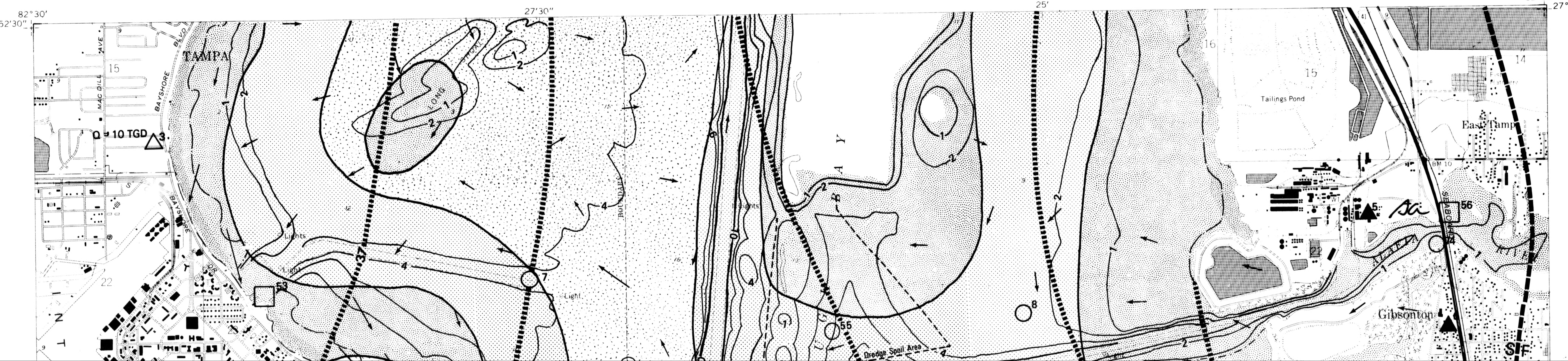
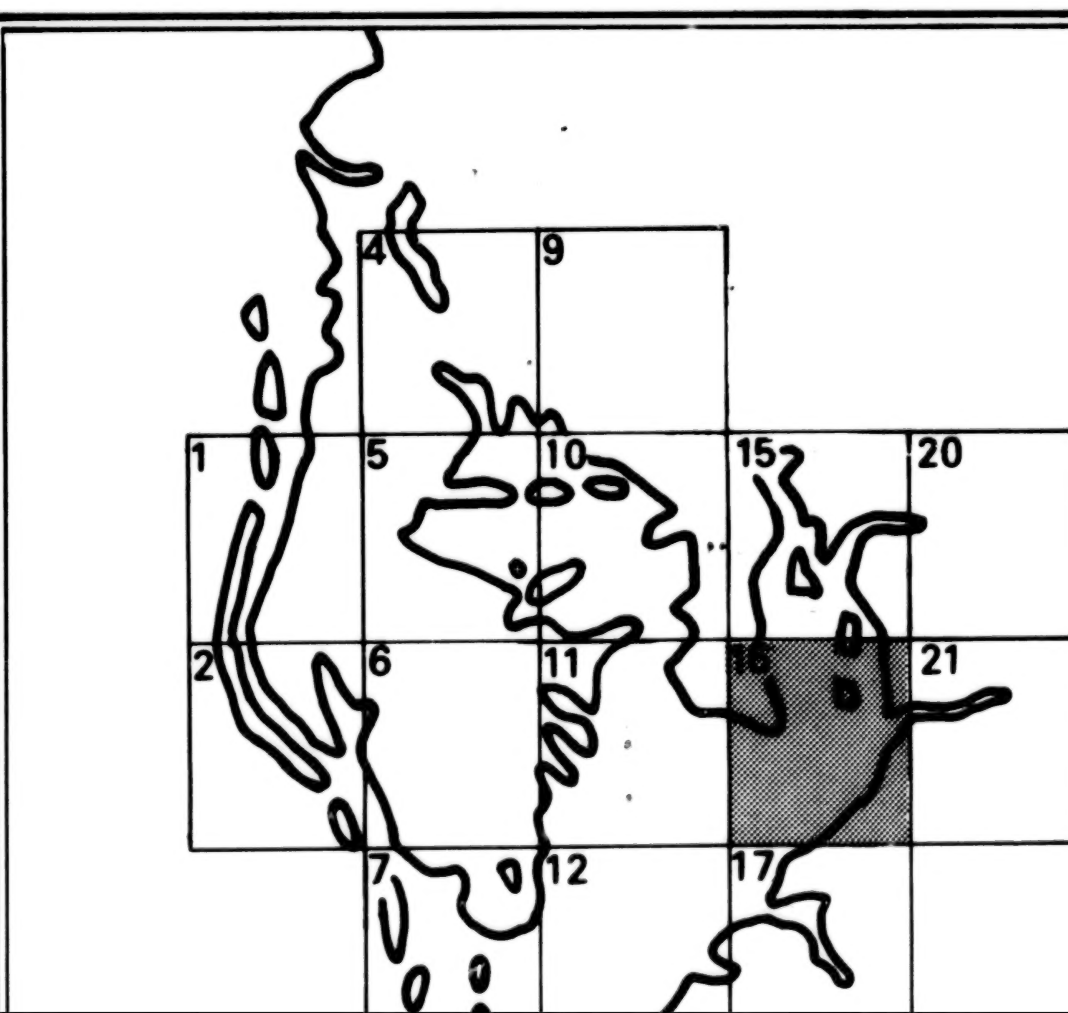


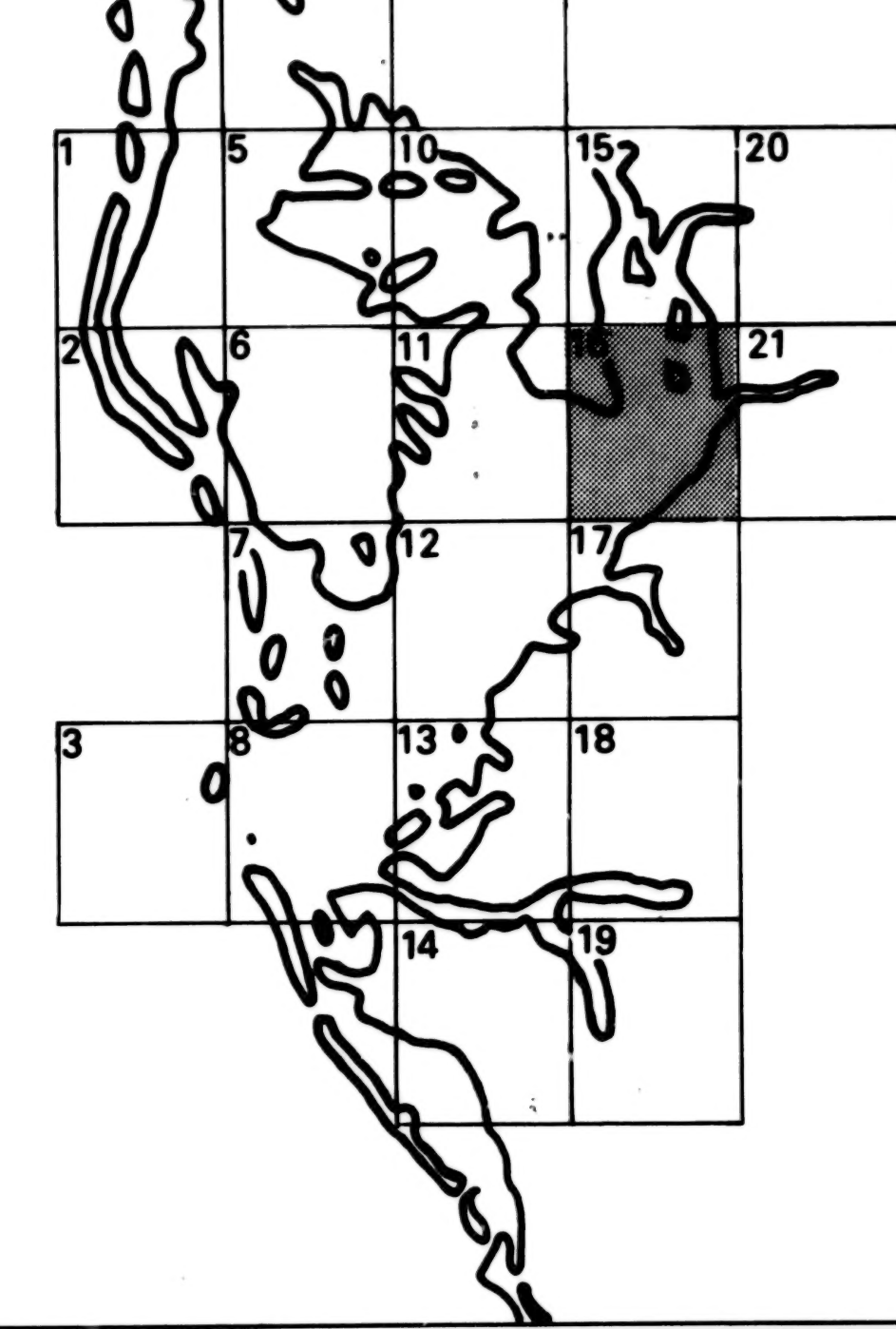


GIBSONTON QUADRANGLE
FLORIDA - HILLSBOROUGH CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

MAPB16

ORIGINAL
**TAMPA BAY
ENVIRONMENTAL ATLAS**
WATER RESOURCES
GIBSONTON





Scale 1:24,000



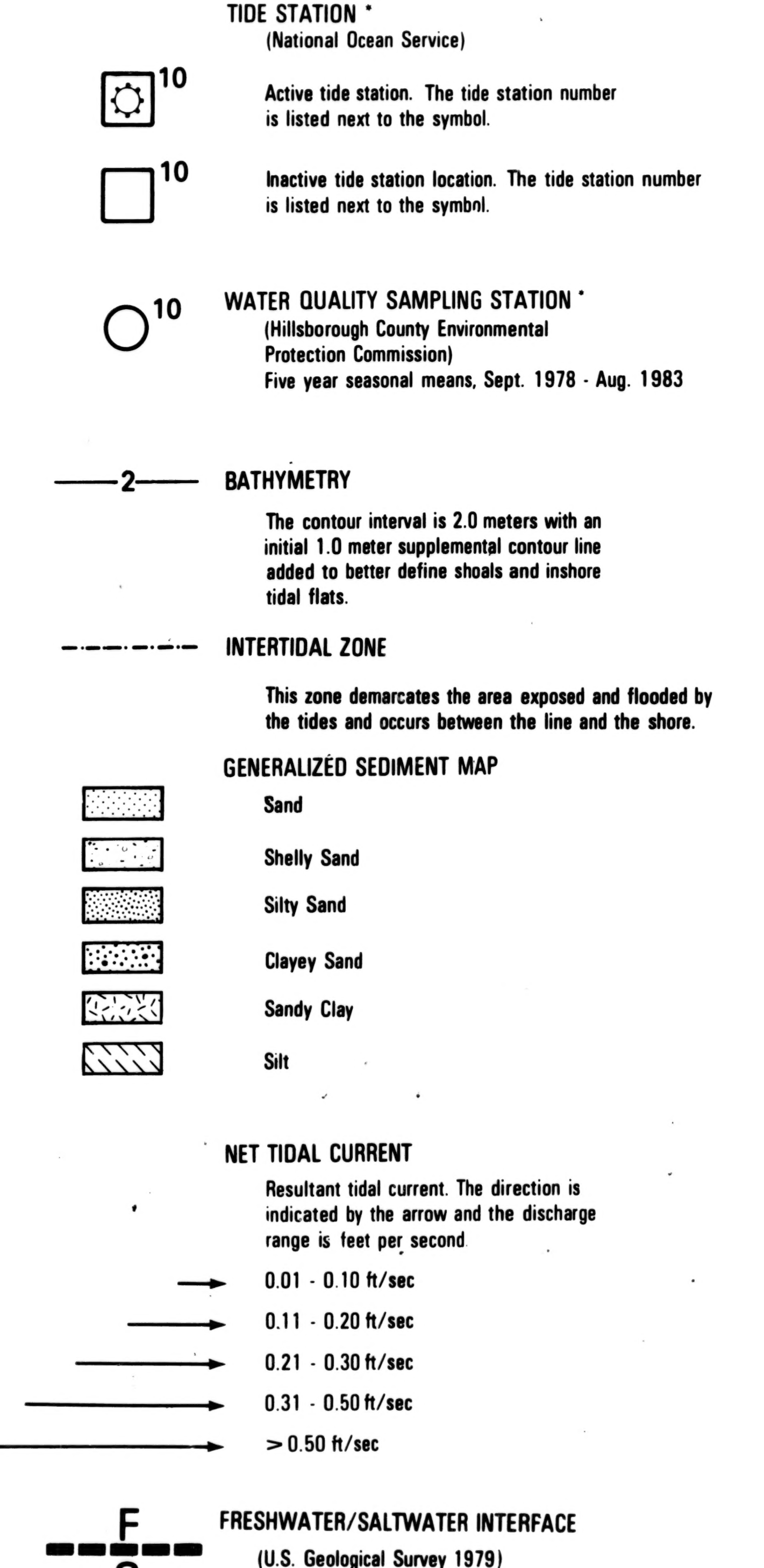
1984

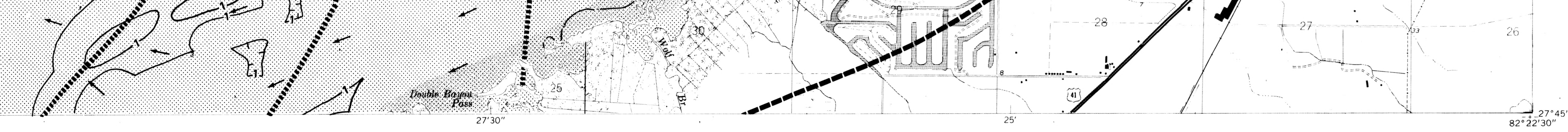


TOPICAL MAPS IN THIS ATLAS:
A. BIOLOGICAL RESOURCES
B. WATER RESOURCES

Produced by U.S. Fish and Wildlife Service
 Projection and 1,000 meter grid, zone 17: Universal
 Transverse Mercator
 10,000-foot grid ticks based on Florida coordinate
 system, east and west zones

Overlay material compiled in 1984 from
 latest available data obtained from
 Federal, State and Local government
 agencies and other sources





THE TAMPA BAY ENVIRONMENTAL ATLAS WAS PRODUCED BY THE U.S. FISH AND WILDLIFE SERVICE, DIVISION OF BIOLOGICAL SERVICES NATIONAL COASTAL ECOSYSTEMS TEAM (FWS/OBS) FOR COASTAL PLANNERS, DECISION MAKERS AND THE GENERAL PUBLIC. TO DETERMINE AND EVALUATE CHANGE AND TO RESOLVE CONFLICTS AMONG LAND USES, FISH AND WILDLIFE REQUIREMENTS, AND THE MAINTENANCE OF ECOLOGICAL DIVERSITY. THE STUDY AREA INCLUDES A MAJOR PORTION OF THE COASTAL COUNTIES OF PINELLAS, HILLSBOROUGH, MANATEE, AND A SMALL PORTION OF SARASOTA. THERE IS NO ATTEMPT, IN THE DESIGN OR PRODUCTS OF THIS STUDY, TO DEFINE THE LIMITS OF PROPRIETARY JURISDICTION OF ANY FEDERAL, STATE, OR LOCAL GOVERNMENT TO ESTABLISH THE GEOGRAPHICAL SCOPE OF THE REGULATORY PROGRAMS OF GOVERNMENT AGENCIES.

THIS MAP HAS BEEN COMPILED FROM A VARIETY OF SOURCE MATERIALS INCLUDING MAPS, AERIAL PHOTOS, AND REPORTS. SINCE MANY SOURCES CONTAINED GENERALIZED LOCATIONS OF RESOURCES AND OTHER MAPPED FEATURES, THE USER SHOULD NOT RELY ON THESE MAPS FOR PRECISE MEASUREMENTS OF DISTANCES OR AREAS.

PRIMARY SOURCES OF MAPPED INFORMATION

SALINITY: Conductivity for Tampa Bay water quality sampling stations Sept. 1978 - August 1983. Hillsborough County Environmental Protection Commission.

POINT SOURCE DISCHARGES: Computer printout of industrial and municipal point source discharges in West Central Florida. Florida Dept. of Environmental Regulation, 1983.

DREDGE SPOIL DISPOSAL AREAS: Dredge and Spoil easement location maps. Florida Dept. of Natural Resources.

Selected areas on this U.S.G.S. base map updated using information extracted from aerial photography. This information not field checked.

N.O.S. TIDE STATIONS: Index of tide stations for the state of Florida. National Ocean Service, Rockville, Md. 1981.

WATER QUALITY: Total chlorophyll, conductivity, turbidity, temperature and total nitrogen data for Tampa Bay water quality stations, Sept. 1978 - August 1983. Hillsborough County Environmental Protection Commission.

BATHYMETRIC: Bathymetric map to St. Petersburg Quadrangle, N.O.S. 1978.

INTERTIDAL ZONE: Nautical Chart #s 11410, 11413, 11414 and 11425. N.O.S., Rockville, Md. 1983.

SEDIMENTS: Sediments, oceanographic observations and Floristic data for Tampa Bay, Florida and adjacent waters, 1961-1965. Taylor and Saloman, 1969.

TIDAL CURRENTS: Changes in tidal flow, circulation and flushing caused by dredge and fill in Tampa Bay, Florida. U.S. Geological Survey Open File Report #84-447. Goodwin, 1984.

FRESHWATER-SALTWATER INTERFACE: Position of the freshwater-saltwater interface in the upper part of the Floridan aquifer, Southwest Florida, 1979. U.S.G.S. water resources open-file report 82-90. Causseaux and Fretwell, 1982.

FOR COMPLETE REFERENCE SEE MAP NARRATIVE

Supplemental Legend (Cont'd)

Station #11	Lat. 27°48'46"	Long. 82°29'03"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
Total Chlorophyll (ug/l)	42.8	55.1	36.1	18.1	38.0
Conductivity (mmhos)	39133	39383	36633	43633	39696
Turbidity (NTU S)	7.6	8.0	6.4	7.0	7.2
Temperature (°C)	21.7	28.0	25.6	16.4	23.2
Total Nitrogen (mg/l)	1.10	1.45	1.32	0.81	1.17

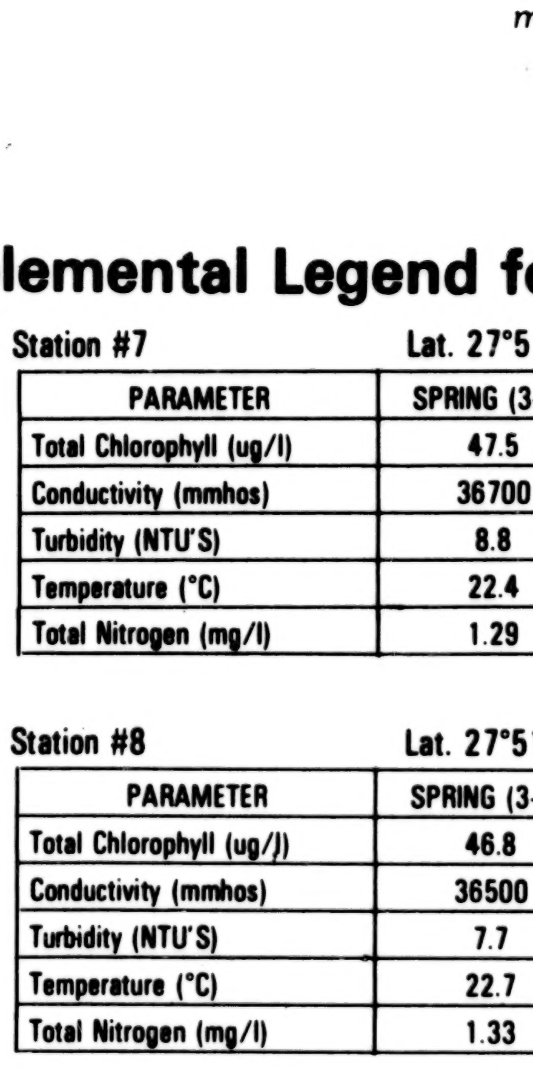
Station #55	Lat. 27°51'09"	Long. 82°28'07"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
Total Chlorophyll (ug/l)	36.8	48.4	37.6	37.2	40.0
Conductivity (mmhas)	38033	38100	36600	41150	38471
Turbidity (NTU S)	7.2	5.0	5.2	4.6	5.5
Temperature (°C)	22.2	29.3	25.6	17.5	23.6
Total Nitrogen (mg/l)	1.19	0.94	1.23	0.78	0.96

Station #73	Lat. 27°49'32"	Long. 82°24'46"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
Total Chlorophyll (ug/l)	36.7	64.2	35.0	27.4	40.8
Conductivity (mmhos)	39100	39400	36333	41267	39025
Turbidity (NTU/S)	7.4	6.8	4.9	4.5	5.9
Temperature (°C)	22.2	29.7	25.5	17.0	23.6
Total Nitrogen (mg/l)	1.00	1.54	1.40	0.82	1.14

	Lat. 27°51'31"	Long. 82°23'04"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
phytopl (ug/l)	45.4	37.9	38.5	22.2	38.5
cty (mmhos)	34670	37850	30967	30694	33495
(NTU S)	6.8	5.4	8.4	5.3	6.5
ure (°C)	23.7	28.5	25.6	16.4	23.8
ogen (mg/l)	1.50	1.38	1.43	1.72	1.51

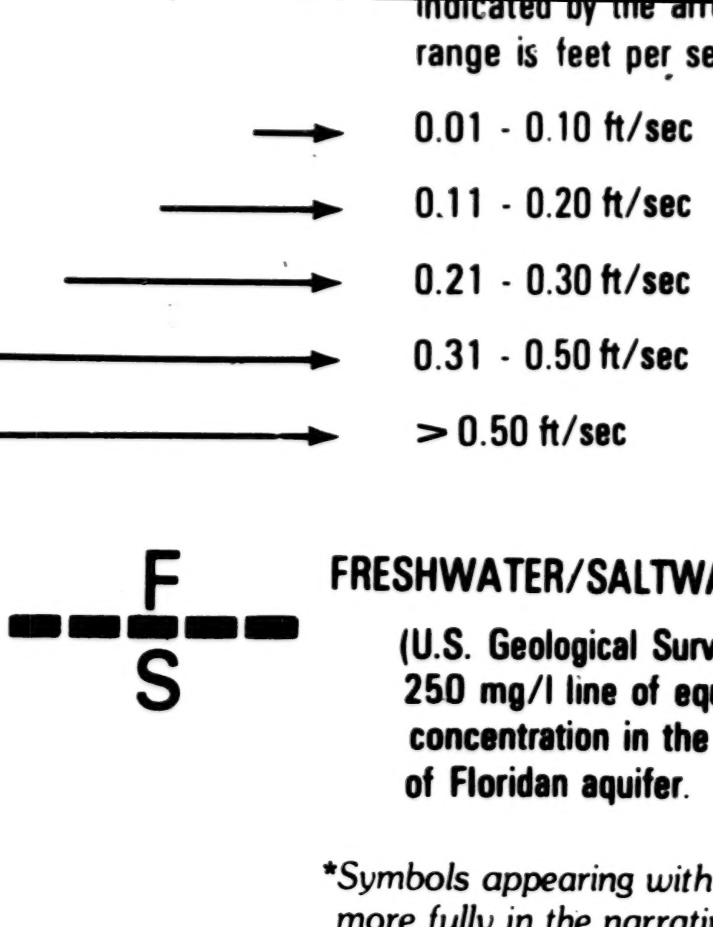
80	Lat. 27°48'38"	Long. 82°26'57"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
Chlorophyll (ug/l)	37.0	44.4	32.4	29.4	35.8
Conductivity (mmhos)	39966	40533	38000	43083	40396
Turbidity (NTU/S)	6.1	5.6	3.4	4.0	4.8
Temp (°C)	22.2	28.6	25.7	17.0	23.6
Nitrogen (mg/l)	1.04	0.88	1.16	0.61	0.92

ST	Lat. 27°46'15"	Long. 82°27'21"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
phytopl ^a (ug/l)	35.3	32.2	27.6	24.8	30.0
st ^b (mmhos)	41067	41183	39133	44050	41358
(NTU ^c)	6.7	4.7	3.6	3.3	4.6
ure (°C)	21.8	29.4	25.7	16.8	23.4
ogan (mg/l)	0.96	0.74	0.93	0.56	0.80



Note: Specific conductivity values on the supplemental legend should be in μ mhos.

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FRESHWATER/SALTWATER INTERFACE
(U.S. Geological Survey 1979)
250 mg/l line of equal chloride concentration in the upper part of Floridan aquifer.

*Symbols appearing with numbers are described more fully in the narrative

Supplemental Legend for Water Quality Stations on This Map

Station #7	Lat. 27°51'21"	Long. 82°27'37"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
Total Chlorophyll (ug/l)	47.5	53.1	41.7	44.0	46.6
Conductivity (mmhos)	36700	36967	34600	41283	37400
Turbidity (NTU/S)	8.8	6.2	5.7	5.6	6.6
Temperature (°C)	22.4	29.1	25.7	17.0	23.6
Total Nitrogen (mg/l)	1.29	1.21	1.17	0.82	1.12

Station #8	Lat. 27°51'00"	Long. 82°24'57"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
Total Chlorophyll (ug/l)	46.8	116.7	48.6	38.8	62.7
Conductivity (mmhos)	36500	36883	32733	39250	36342
Turbidity (NTU/S)	7.7	7.6	6.7	6.6	7.2
Temperature (°C)	22.7	29.8	25.6	17.6	23.9
Total Nitrogen (mg/l)	1.33	1.65	1.46	0.90	1.34

Station #9	Lat. 27°47'06"	Long. 82°25'46"			
PARAMETER	SPRING (3-5)	SUMMER (6-8)	FALL (9-11)	WINTER (12-2)	ANNUAL (1-12)
Total Chlorophyll (ug/l)	43.0	40.8	32.6	29.7	36.5
Conductivity (mmhos)	40134	40650	37933	42600	40329
Turbidity (NTU S)	7.8	5.3	3.7	3.9	5.2
Temperature (°C)	23.0	29.8	26.3	18.0	24.3
Total Nitrogen (mg/l)	1.06	1.01	1.23	0.69	1.00

TEST CHART
No. 2

